STREAMVIEW DRIVE TRAFFIC ANALYSIS REPORT

Prepared for:
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January 28, 2008

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BACKGROUND

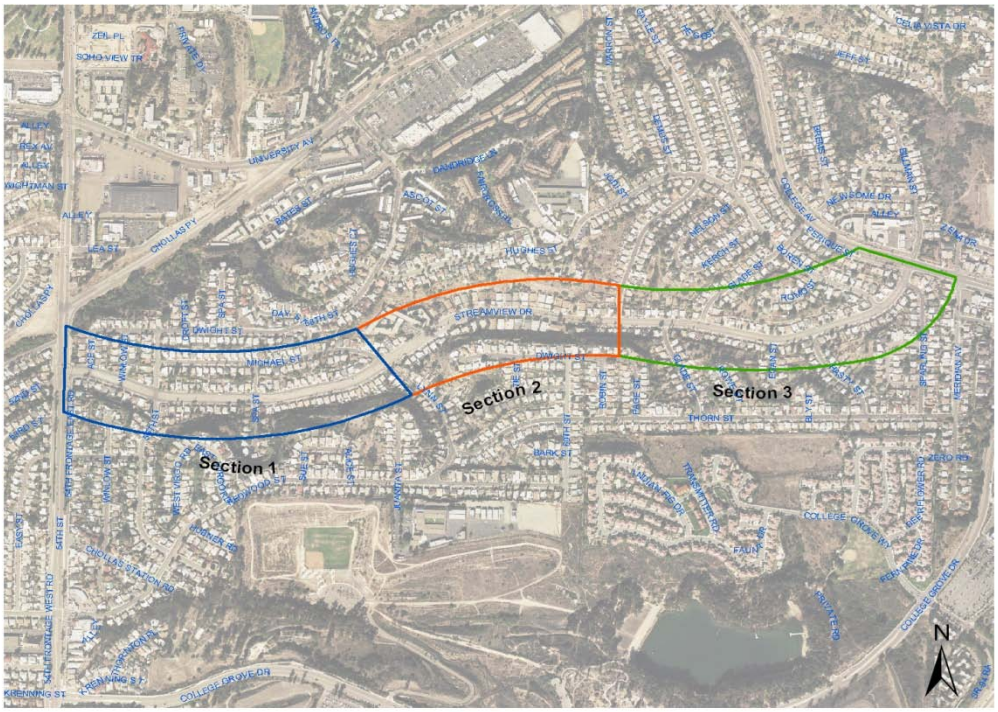
Streamview Drive is located in the Mid-City, Eastern Area community and it includes single-family homes and some multifamily complexes. A number of revitalization efforts have been considered in the Mid-City communities to promote aesthetic and environmental improvements, and enhance the quality of life for residents, visitors and property owners. A Neighborhood Refurbishment Plan has been proposed for Streamview Drive between 54th Street and College Avenue. Similar programs were developed for Adams Avenue, University Avenue, and El Cajon Boulevard.

As part of the revitalization program, the City of San Diego traffic engineers have over the years considered alternatives for reducing speeding and cut-through vehicles on Streamview Drive. The City has considered and evaluated neighborhood traffic calming devices such as traffic circles, sidewalks, pedestrian ramps, median improvements, and striping to mitigate these problems. Visual and esthetic factors have also been considered. The project was divided into the following three sections of Streamview Drive:

Section 1: Streamview Drive between 54th Street and Lynn/Michael Street
Section 2: Streamview Drive between Lynn/Michael Street and Gayle Street
Section 3: Streamview Drive between Gayle Street and College Avenue

Figure 1 shows the study area with the three sections on Streamview Drive. This report presents the existing transportation conditions along Streamview Drive, as well as a traffic calming recommendations to mitigate existing issues.

Figure 1: Study Area



1 SECTION 1: STREAMVIEW DRIVE BETWEEN 54TH STREET AND LYNN STREET/MICHAEL STREET

1.1 EXISTING CONDITIONS

Existing transportation conditions on Streamview Drive between 54th Street and Lynn Street/Michael Street have been evaluated in order to identify current transportation deficiencies related to traffic control and intersection operations. All modes of travel including pedestrian, bicycles, transit and motor vehicles were evaluated. Data collected includes: street names and functional classifications, intersection geometry, posted speeds, volumes, transit information, and historical collision data.

1.1.1 Transportation Network

Streamview Drive between 54th Street and Lynn Street/Michael Street is classified as a collector by the California Department of Transportation[1], and as a local street by the City of San Diego[2]. It carries an average daily traffic (ADT) of approximately 2,800[3] vehicles between 54th Street and Lynn/Michael Street. Streamview Drive consists of one lane in each direction with a very wide median which makes this roadway very unique. The posted speed in this section of Streamview Drive is 25 mph. There are some sections with missing sidewalks and there are no on-street bike lanes. There is on-street parallel parking along Streamview Drive north and south of the street.

54th Street is classified as a minor arterial by the California Department of Transportation[4], and as a major street by the City of San Diego[5]. It carries an average daily traffic (ADT) of approximately 21,000[6] vehicles within the study area. It consists of two lanes in each direction with a northbound and southbound left turn lanes at Streamview Drive. The posted speed along 54th Street in the study area is 35 mph. There are some sections of roadway with missing sidewalks.

Lynn Street is classified as a collector by the California Department of Transportation[7], and as a local street by the City of San Diego[8]. It consists of two lanes in each direction

[1] Functional Classification based on the California Department of Transportation, California Road System.
[2] City of San Diego Interactive Map, Road Classes.
[3] Based on 24-hour traffic volume counts conducted by the City of San Diego on December 11, 2008.
[4] Functional Classification based on the California Department of Transportation, California Road System.
[5] City of San Diego Interactive Map, Road Classes.
[6] Based on 24-hour traffic volume counts conducted by the City of San Diego in April 2005.
[7] Functional Classification based on the California Department of Transportation, California Road System.
[8] City of San Diego Interactive Map, Road Classes.

with parking on both sides of the street. There are some sections of roadway with missing sidewalks.

Ace Street, Winlow Street, 55th Street, Spa Street, and Michael Street are classified as local streets by the California Department of Transportation[9] and the City of San Diego[10]. They consist of one lane in each direction and on-street parking on both sides of the streets. The posted speed along these local streets is 25 mph. There are some sections of these streets with missing sidewalks.

Table 1 shows a summary of the network characteristics along Stremview Drive between 54th Street and Lynn Street/Michael Street, such as functional classification, cross section characteristics, average daily traffic, and on-street parking and bicycle facilities information.

Table 1: Existing Network Characteristics of Streamview Drive between 54th Street and Lynn Street/Michael Street

Roadway	Functional classification[1]	Cross Section	Approx. Average Daily Traffic (ADT)[2]	On-Street Parking	On-Street Bike Lanes
Streamview Dr	Collector	2 Lanes (one lane in each direction)	2,800	Yes (north and south side)	No
54th Street	Minor Arterial	4/5 lanes (two in each direction plus turn lanes)	21,000	No	No
Ace Street	Local	2 Lanes (one lane in each direction)	N/A	Yes	No
Winlow Street	Local	2 Lanes (one lane in each direction)	N/A	Yes	No
55th Street	Local	2 Lanes (one lane in each direction)	N/A	Yes	No
Spa Street	Local	2 Lanes (one lane in each direction)	N/A	Yes	No
Michael Street	Local	2 Lanes (one lane in each direction)	N/A	Yes	No
Lynn Street	Collector	2 Lanes (one lane in each direction)	N/A	Yes	No

Notes:
[1]Functional Classification based on the California Department of Transportation, California Road System.
[2]Based on 24-hour counts conducted by the City of San Diego.

1.1.2 Traffic Control

The study intersections along Streamview Drive between 54th Street and Lynn Street/Michael Street with their current traffic control are listed below.

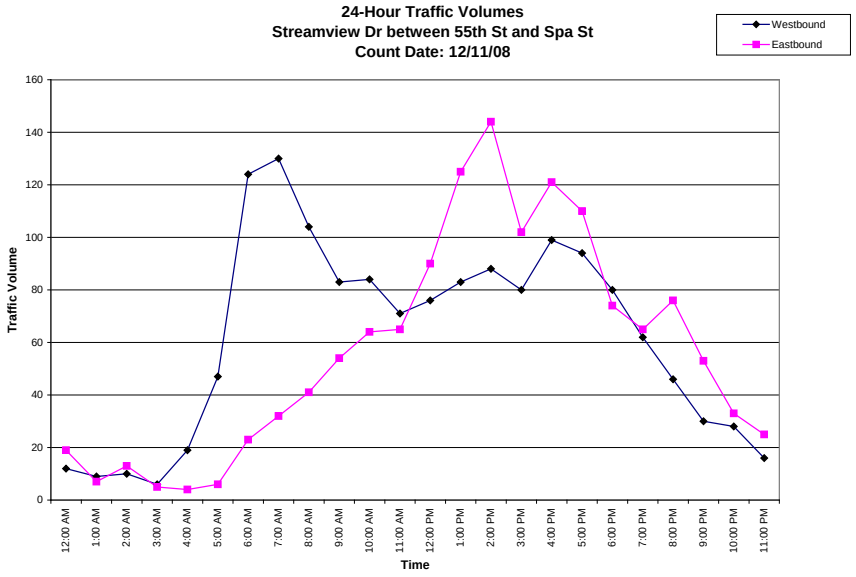
[9] Functional Classification based on the California Department of Transportation, California Road System.
[10] City of San Diego Interactive Map, Road Classes.

- 54th Street/Streamview Drive intersection is controlled by a traffic signal with protected left turns in the north/south direction. Streamview Drive connects to 54th Street in a "T" intersection.
- Ace Street/Streamview Drive intersection is uncontrolled along Streamview Drive and stop sign controlled along Ace Street.
- Willow Street/Streamview Drive intersection is uncontrolled along Streamview Drive and stop sign controlled along Willow Street.
- 55th Street/Streamview Drive intersection is uncontrolled along Streamview Drive and stop sign controlled along 55th Street.
- Spa Street/Streamview Drive intersection is uncontrolled along Streamview Drive and stop sign controlled along Spa Street.
- Lynn Street/Michael Street/Streamview Drive intersection is four-way stop controlled. Stop signs and "STOP" pavement markers exist in all directions.

1.1.3 Traffic Volumes

Twenty-four hour traffic volume surveys were conducted along Streamview Drive between 55th Street and Spa Street on December 11, 2008. The current daily traffic volume in this segment of Streamview Drive is approximately 2,800 vehicles. Figure 2 shows the 24-hour traffic volume profile for this section of roadway. This figure shows that traffic volumes peak between 7:00 AM and 8:00AM in the westbound direction, and between 2:00 PM and 3:00 PM in the eastbound direction. Complete twenty-four hour traffic volume surveys can be found in the Technical Appendix.

Figure 2: Hourly Traffic Volume for Streamview Dr (between 55th Street and Spa Street)



1.1.4 Speed Survey

Speed surveys were conducted on Streamview Drive between 55th Street and Spa Street on December 11, 2008. Table 2 shows the results of the speed survey data, as well as the posted speed in this section of roadway. Additional survey data can be found in the Technical Appendix.

Table 2: Speed Survey Summary

LOCATION	DIRECTION	POSTED SPEED (MPH)	50TH PERCENTILE SPEED (MPH)	85TH PERCENTILE SPEED (MPH)
Streamview Dr 55th St to Spa St	Westbound	25	30	36
	Eastbound	25	34	39

The 50th percentile speed represents the average speed and separates the fastest 50% and slowest 50% of motorists. If the speed limit were set at the average speed, only 50% of vehicles would be legalized. The 85th percentile speed is the speed at which 85 percent of the vehicles are traveling at or below. It is used as a measure of the upper limit of reasonable speed for the prevailing conditions on the roadway. Typically, facilities are designed for the 85th percentile speed.

1.1.5 Pedestrians/Bicycles Facilities

There are some sections of Streamview Drive between 54th Street and Lynn Street/Michael Street with missing sidewalks. There are no on-street bike lanes along this section of roadway. However, Streamview Drive is part of the San Diego Bicycle Master Plan[11], which recommends class II or III bicycle facilities. Pedestrian ramps are missing at the following locations:

- 54th Street/Streamview Drive Int.: missing pedestrian ramp on the southeast corner
- Winlow Street/Streamview Drive Int.: missing pedestrian ramps on the northwest and northeast corners
- 55th Street/Streamview Drive Int.: missing pedestrian ramps on the northwest and southwest corners
- Spa Street/Streamview Drive Int.: missing pedestrian ramps on the northwest, southwest, and southeast corners
- Michael Street/Streamview Drive Int.: missing all four pedestrian ramps

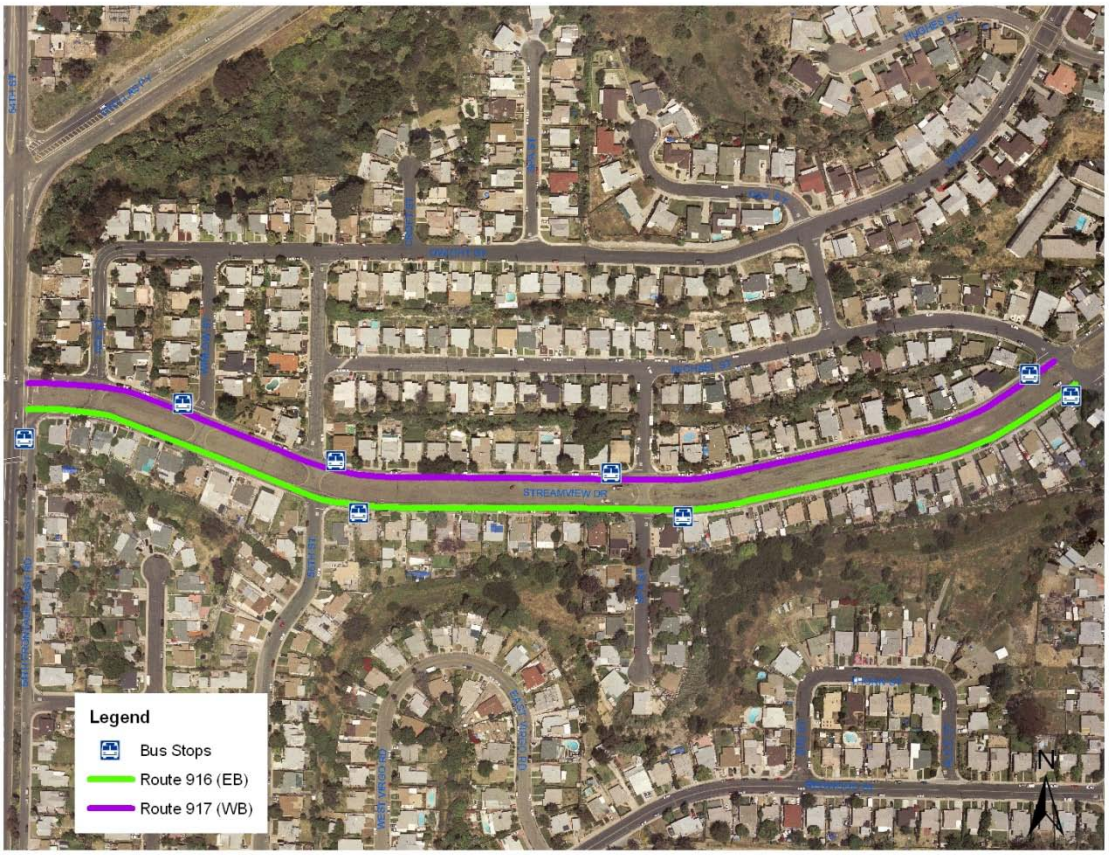
The American with Disabilities Act (ADA) recommends a minimum clear width of 36 inches along pedestrian paths. Sections of existing sidewalks with less than 36" clearance due to existing streetlight poles, signs or fire hydrants were identified in the field. Measures must be taken to mitigate these issues and provide at least 36" clearance path for pedestrians. Figures with the missing sidewalk locations and pedestrian obstructions are included in the Technical Appendix.

[11] City of San Diego Bicycle Master Plan, May 2002, Pg 78.

1.1.6 Transit

The Metropolitan Transit System (MTS) bus routes provide transit service to Streamview Drive. Route 916 serves Streamview Drive in the eastbound direction, and route 917 serves the westbound direction. These routes serve this section with headways of 30 minutes during weekdays and 60 minutes during the weekends. Figure 3 shows the existing transit bus stops, and bus routes along Streamview Drive between 54th Street and Lynn Street/Michael Street.

Figure 3: **Streamview Drive Existing Transit Bus Stops and Bus Routes**



1.1.7 Collisions

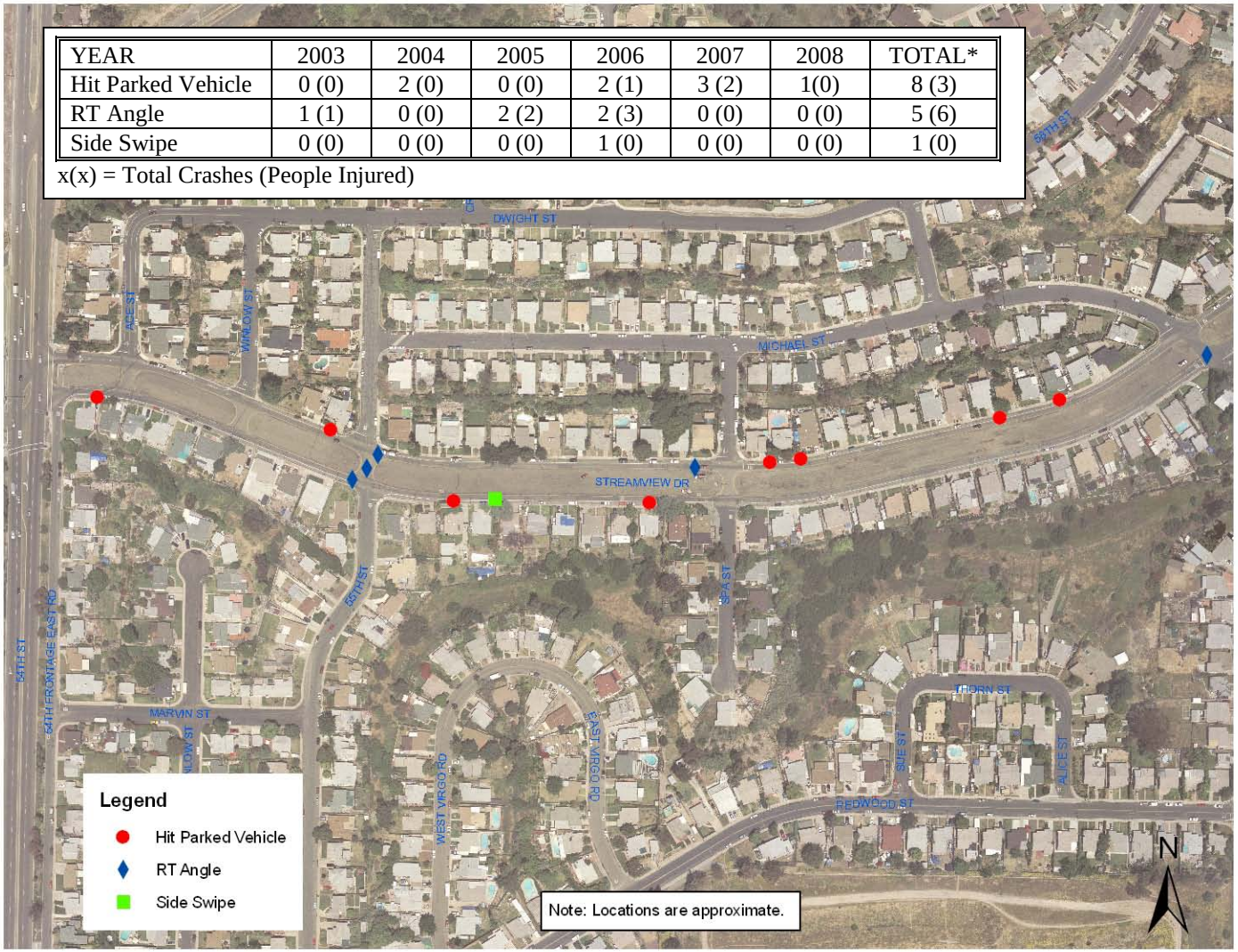
Historical collision data was analyzed for Streamview Drive between 54th Street and Lynn Street/Michael Street. Collision Data was collected from the City of San Diego database for years 2003 through 2008. Figure 4 summarizes the historical collision data. During this period there were 14 collisions reported along this section of Streamview Drive.

Crash rates are an effective tool to measure safety hazards at a particular section of roadway. Yearly crash rates from 2003 to 2008 were developed for this section of roadway. The crash rates at this segment of roadway are higher than the city-wide crash rates for minor collectors, especially for years 2006 and 2007.

Figure 4: Historical Collision Data Over Time, Section 1 (2003-2008)

YEAR	2003	2004	2005	2006	2007	2008	TOTAL*
Hit Parked Vehicle	0 (0)	2 (0)	0 (0)	2 (1)	3 (2)	1(0)	8 (3)
RT Angle	1 (1)	0 (0)	2 (2)	2 (3)	0 (0)	0 (0)	5 (6)
Side Swipe	0 (0)	0 (0)	0 (0)	1 (0)	0 (0)	0 (0)	1 (0)

x(x) = Total Crashes (People Injured)



This high crash rates are likely due to speeding, traffic control problems at intersections, and vehicles parking in the wide median. Measures need to be taken to mitigate and reduce the number of accidents in this section of roadway. Table 3 shows a summary of accidents and yearly crash rates for this section of Streamview Drive.

Table 3: Section 1: Collision History and Crash Rates

SECTION 1						
Year	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Number of Accidents	1	2	2	5	3	1
Crash Rate (MVM)	2.08	4.16	4.16	10.39	6.23	2.08
City Wide Crash Rate (Minor Collector) (MVM)	1.08	1.04	0.98	1.00	0.96	0.90

1.2 FUTURE RECOMMENDED STREET NETWORK

The Mid-City Community Plan[12] reported future traffic analysis conditions for the Mid-City area. Based on this future analysis, the Community Plan recommends a 2-lane collector roadway classification for Streamview Drive.

1.3 RECOMMENDATIONS

Based on the volume, speed data, and accident data along Streamview Drive, traffic calming measures were evaluated. A two lane roadway is recommended based on the future recommended street network shown in the Mid-City Communities Plan (See Section 1.2). The recommended roadway improvements are shown in Figure 11 (See section 4) and are describe below:

- Due to the high speeds along this section of roadway, a gateway is recommended at 54th Street to alert the drivers that they have entered a residential neighborhood.
- Based on the high number of right-turn accidents at the intersection of 55th Street/Streamview Drive, a traffic circle is recommended at this location. This traffic circle will also reduce speeds along the corridor.
- Remove obstructions to meet the 36" minimum clearance along pedestrian paths.
- Install urban parkways on both sides of the street. Urban parkways should include 8' sidewalks with 2'-3' planter strips or 6' sidewalks with 2'-3' parkway strips. 8' sidewalks are preferred.
- Install 5' bike lanes and 8' parallel parking on both sides of the street.
- Install 12' travel lanes in each direction of traffic.
- Install double yellow striping or 4' max. raised median to divide opposite directions of traffic.
- Evaluate existing street lighting and install new lights as needed.
- Install appropriate signing and striping along the corridor.

[12] Mid-City Communities Plan, August 4, 1998.

2 SECTION 2: STREAMVIEW DRIVE BETWEEN LYNN STREET/MICHAEL STREET AND GAYLE STREET

2.1 EXISTING CONDITIONS

Existing transportation conditions on Streamview Drive between Lynn Street/Michael Street and Gayle Street have been evaluated in order to identify current transportation deficiencies related to traffic control and intersection operations. All modes of travel including pedestrian, bicycles, transit and motor vehicles were evaluated. Data collected includes: street names and functional classifications, intersection geometry, posted speeds, volumes, transit information, and historical collision data.

2.1.1 Transportation Network

Streamview Drive between Lynn Street/Michael Street and Gayle Street is classified as a collector by the California Department of Transportation[13], and as a local street by the City of San Diego[14]. It carries an average daily traffic (ADT) of approximately 2,600[15] vehicles between Lynn Street/Michael Street and Gayle Street. Streamview Drive consists of one lane in each direction with a very wide median which makes this section of roadway very unique. The posted speed along Streamview drive is 25 mph. There are some sections with missing sidewalks and there are no on-street bike lanes along this section of roadway. There is on-street parking along Streamview Drive on the north and south sides of the street, as well the as existing wide median.

Gayle Street is classified as a local street by the California Department of Transportation[16], and the City of San Diego[17]. It consists of one lane in each direction with parking on both sides of the street. The posted speed along Gayle Street in the study area is 25 mph.

Table 4 shows a summary of the network characteristics along Stremview Drive between Lynn Street/Michael Street and Gayle Street, such as functional classification, cross section characteristics, average daily traffic, and on-street parking and bicycle facilities information.

[13] Functional Classification based on the California Department of Transportation, California Road System.
[14] City of San Diego Interactive Map, Road Classes.
[15] Based on 24-hour traffic volume counts conducted by the City of San Diego on December 11, 2008.
[16] Functional Classification based on the California Department of Transportation, California Road System.
[17] City of San Diego Interactive Map, Road Classes.

Table 4: Existing Network Characteristics of Streamview Drive between Lynn Street/Michael Street and Gayle Street

Roadway	Functional classification[1]	Cross Section	Approx. Average Daily Traffic (ADT)[2]	On-Street Parking	On-Street Bike Lanes
Streamview Dr	Collector	2 Lanes (one lane in each direction)	2,600	Yes (north/south side and median)	No
Gayle Street	Local Street	2 Lanes (one in each direction)	N/A	Yes	No

Notes:
[1]Functional Classification based on the California Department of Transportation, California Road System.
[2]Based on 24-hour counts conducted by the City of San Diego.

2.1.2 Traffic Control

The study intersections along Streamview Drive between Lynn Street/Michael Street and Gayle Street with their current traffic control are listed below.

- Lynn Street/Michael Street/Streamview Drive intersection is four-way stop sign controlled. Stop signs and "STOP" pavement markers exist in all directions.
- Gayle Street/Streamview Drive intersection is stop sign controlled along Gayle Street. Gayle Street connects to Streamview Drive at a "T" intersection.

2.1.3 Traffic Volumes

Twenty-four hour traffic volume surveys were conducted along Streamview Drive between Lynn Street/Michael Street and Gayle Street on December 11, 2008. The current daily traffic volume in this segment of Streamview Drive is approximately 2,600 vehicles. Figure 5 shows the 24-hour traffic volume profile for this section of roadway. This figure shows that traffic volumes peak between 4:00 PM and 5:00PM in the westbound direction, and between 5:00 PM and 6:00 PM in the eastbound direction. Complete twenty-four hour traffic volume surveys can be found in the Technical Appendix.

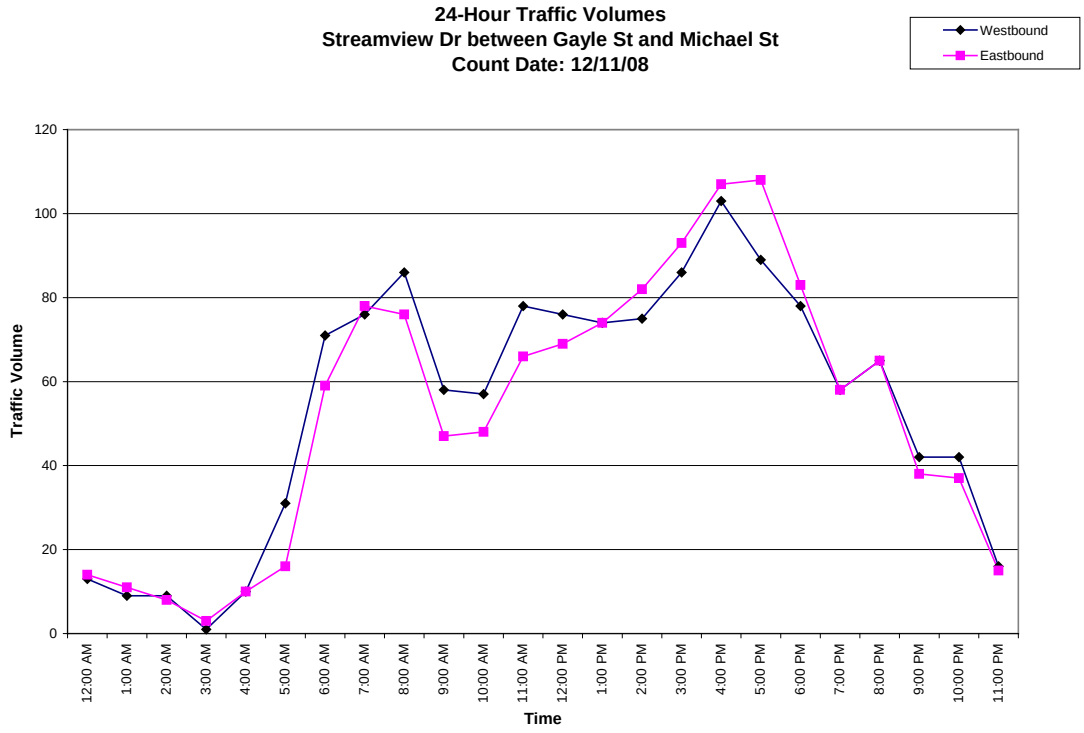
2.1.4 Speed Survey

Speed surveys were conducted on Streamview Drive between Michael Street and Gayle Street on December 11, 2008. Table 5 shows the results of the speed survey data, as well as the posted speed in this section of roadway. Additional survey data can be found in the Technical Appendix.

Table 5: Speed Survey Summary

LOCATION	DIRECTION	POSTED SPEED (MPH)	50TH PERCENTILE SPEED (MPH)	85TH PERCENTILE SPEED (MPH)
Streamview Dr between Michael St and Gayle St	Westbound	25	28	34
	Eastbound	25	28	34

Figure 5: Hourly Traffic Volume for Streamview Dr (between Michael Street and Gayle Street)



The 50th percentile speed represents the average speed and separates the fastest 50% and slowest 50% of motorist. If the speed limit were set at the average speed, only 50% of vehicles would be legalized. The 85th percentile speed is the speed at which 85 percent of the vehicles are traveling at or below. It is used as a measure of the upper limit of reasonable speed for the prevailing conditions on the roadway. Typically, facilities are designed for the 85th percentile speed.

2.1.5 Pedestrians/Bicycles Facilities

There are some sections of Streamview Drive between Lynn Street/Michael Street and Gayle Street with missing sidewalks. There are no on-street bike lanes along this section of Streamview Drive. However, Streamview Drive is part of the San Diego Bicycle Master Plan[18], which recommends Class II or III bicycle facilities.

The American with Disabilities Act (ADA) recommends a minimum clear width of 36 inches along pedestrian paths. Sections of existing sidewalks with less than 36" clearance due to existing streetlight poles, signs or fire hydrants were identified in the field. Measures must be taken to mitigate these issues and provide at least 36" clearance path for pedestrians. Figures with the missing sidewalk locations and pedestrian obstructions are included in the Technical Appendix.

[18] City of San Diego Bicycle Master Plan, May 2002, Pg 78.

2.1.6 Transit

The Metropolitan Transit System (MTS) bus routes provide transit service to this section of Streamview Drive. Route 916 serves Streamview Drive in the eastbound direction, and route 917 serves the westbound direction. These routes serve this section with headways of 30 minutes during weekdays and 60 minutes during the weekends. Figure 6 shows the existing transit bus stops, and bus routes along Streamview Drive between Lynn Street/Michael Street and Gayle Street.

Figure 6: Streamview Drive Existing Transit Bus Stops and Bus Routes

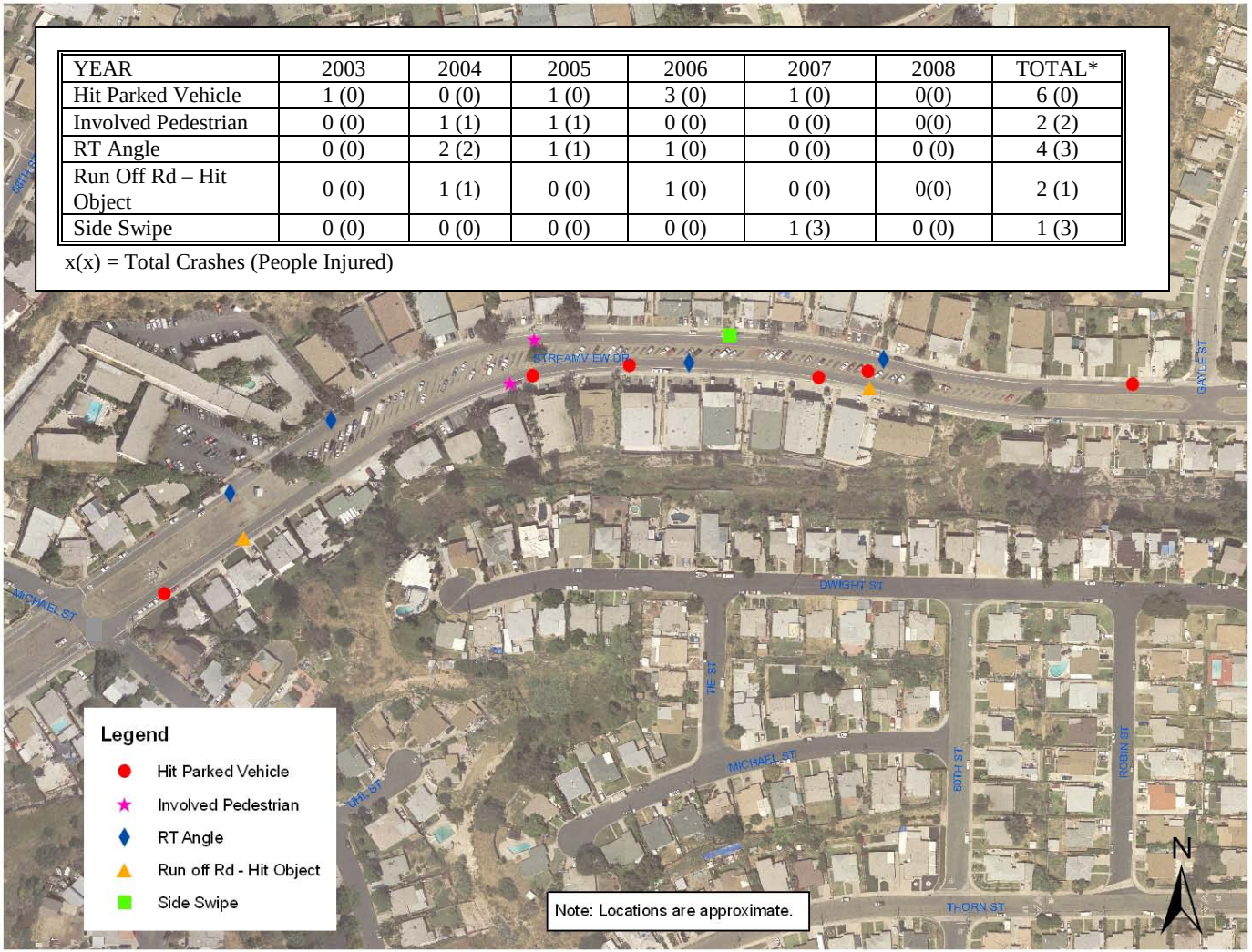
2.1.7 Collisions

Historical collision data was analyzed for Streamview Drive between Lynn Street/Michael Street and Gayle Street. Collision Data was collected from the City of San Diego database for years 2003 through 2008. Figure 7 summarizes the historical collision data. During this period there were 15 collisions reported along this section of Streamview Drive. Of this 15 collisions, some of these accidents involved children pedestrians or bikes.

Figure 7: Historical Collision Data Over Time, Section 2 (2003-2008)

YEAR	2003	2004	2005	2006	2007	2008	TOTAL*
Hit Parked Vehicle	1 (0)	0 (0)	1 (0)	3 (0)	1 (0)	0(0)	6 (0)
Involved Pedestrian	0 (0)	1 (1)	1 (1)	0 (0)	0 (0)	0(0)	2 (2)
RT Angle	0 (0)	2 (2)	1 (1)	1 (0)	0 (0)	0 (0)	4 (3)
Run Off Rd – Hit Object	0 (0)	1 (1)	0 (0)	1 (0)	0 (0)	0(0)	2 (1)
Side Swipe	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	1 (3)

x(x) = Total Crashes (People Injured)



Crash rates are an effective tool to measure safety hazards at a particular section of roadway. Yearly crash rates from 2003 to 2008 were developed for this section of roadway. The crash rates at this segment of roadway are higher than the city-wide crash rates for minor collectors, especially for years 2004 and 2006. This high crash rates are likely due to speeding, and vehicles parking in the wide median. Measures need to be taken to mitigate and reduce the number of accidents in this section of roadway, especially because a lot of accidents involved children and bikes. Table 6 shows a summary of accidents and yearly crash rates for this section of Streamview Drive.

Table 6: Section 2: Collision History and Crash Rates

SECTION 2						
Year	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Number of Accidents	1	4	3	5	2	0
Crash Rate (MVM)	2.97	11.87	8.90	14.84	5.94	0.00
City Wide Crash Rate (Minor Collector) (MVM)	1.08	1.04	0.98	1.00	0.96	0.90

2.2 FUTURE RECOMMENDED STREET NETWORK

The Mid-City Community Plan[19] reported future traffic anlysis conditions for the Mid-City area. Based on this future analysis, the Community Plan recommends a 2-lane collector roadway classification for Streamview Drive.

2.3 RECOMMENDATIONS

Based on the volume, speed data, and accident data along Streamview Drive, traffic calming measures were evaluated. A two lane roadway is recommended based on the future recommended street network shown in the Mid-City Communities Plan (See Section 2.2). The recommended roadway improvements are shown in Figure 11 (See section 4) and are describe below:

- A traffic circle is recommended at the Gayle Street/Streamview Drive intersection. This traffic circle will slow down traffic along the corridor.
- Remove obstructions to meet the 36" minimum clearance along pedestrian paths.
- Install urban parkways on both sides of the street. Urban parkways should include 8' sidewalks with 2'-3' planter strips or 6' sidewalks with 2'-3' parkway strips. 8' sidewalks are preferred.
- Install 5' bike lanes and 8' parallel parking on both sides of the street.
- Install 12' travel lanes in each direction of traffic.
- Median to include 96 striped parking spaces. West and east of this parking area, median must taper to double yellow striping or 4' max. raised median.
- Evaluate existing street lighting and install new lights as needed.
- Install appropriate signing and striping along the corridor.

[19] Mid-City Communities Plan, August 4, 1998.

3 SECTION 3: STREAMVIEW DRIVE BETWEEN GAYLE STREET AND COLLEGE AVENUE

3.1 EXISTING CONDITIONS

Existing transportation conditions on Streamview Drive between Gayle Street and College Avenue have been evaluated in order to identify current transportation deficiencies related to traffic control and intersection operations. All modes of travel including pedestrian, bicycles, transit and motor vehicles were evaluated. Data collected includes: street names and functional classifications, intersection geometry, posted speeds, volumes, transit information, and historical collision data.

3.1.1 Transportation Network

Streamview Drive between Gayle Street and College Avenue is classified as a collector by the California Department of Transportation[20], and as a local street by the City of San Diego[21]. It carries an average daily traffic (ADT) of approximately 2,800[22] vehicles between Gayle Street and College Avenue. Streamview Drive consists of one lane in each direction with a very wide median which makes this roadway very unique. The posted speed in this section of Streamview Drive is 25 mph. There is on-street parallel parking along Streamview Drive north and south of the street and there are no on-street bike lanes.

College Avenue is classified as a principal arterial by the California Department of Transportation[23], and as a major street by the City of San Diego[24]. It carries an average daily traffic (ADT) of approximately 25,000[25] vehicles within the study area. It consists of two lanes in each direction with left turn lanes at Streamview Drive. The posted speed along College Avenue in the study area is 40 mph. There are some sections of roadway with missing sidewalks.

Boren Street is classified as a collector by the California Department of Transportation[26] and the City of San Diego[27]. It consists of one lane in each direction with parking on both sides of the street. There are existing speed humps and sidewalks along Boren Street within the study area.

[20] Functional Classification based on the California Department of Transportation, California Road System.
[21] City of San Diego Interactive Map, Road Classes.
[22] Based on 24-hour traffic volume counts conducted by the City of San Diego on December 11, 2008.
[23] Functional Classification based on the California Department of Transportation, California Road System.
[24] City of San Diego Interactive Map, Road Classes.
[25] Based on 24-hour traffic volume counts conducted by the City of San Diego in May 2006.
[26] Functional Classification based on the California Department of Transportation, California Road System.
[27] City of San Diego Interactive Map, Road Classes.

Glade St, Egan St, Hasty St, Sparling St, and Perique St are classified as local streets by the California Department of Transportation[28], and as local streets by the City of San Diego[29]. They consist of one lane in each direction and on-street parking on both sides of the streets. The posted speed along these local streets is 25 mph. There are some sections of these streets with missing sidewalks.

Table 7 shows a summary of the network characteristics along Stremview Drive between Gayle Street and College Avenue within the study area, such as functional classification, cross section characteristics, average daily traffic, and on-street parking and bicycle facilities information.

Table 7: Existing Network Characteristics of Streamview Drive between Gayle Street and College Avenue

Roadway	Functional classification[1]	Cross Section	Approx. Average Daily Traffic (ADT)[2]	On-Street Parking	On-Street Bike Lanes
Streamview Dr	Collector	2 Lanes (one lane in each direction)	2,800	Yes (north and south side)	No
College Avenue	Principal Arterial	2 lanes (two in each direction plus turn lanes)	25,000	No	No
Boren Street	Collector	2 lanes (two in each direction)	N/A	Yes	No
Glade Street	Local	2 Lanes (one lane in each direction)	N/A	Yes	No
Egan Street	Local	2 Lanes (one lane in each direction)	N/A	Yes	No
Hasty Street	Local	2 Lanes (one lane in each direction)	N/A	Yes	No
Sparling Street	Local	2 Lanes (one lane in each direction)	N/A	Yes	No
Perique Street	Local	2 Lanes (one lane in each direction)	N/A	Yes	No

Notes:
[1]Functional Classification based on the California Department of Transportation, California Road System.
[2]Based on 24-hour counts conducted by the City of San Diego.

3.1.2 Traffic Control

The study intersections along Streamview Drive between Gayle Street and College Avenue with their current traffic control are listed below.

- Glade Street/Streamview Drive intersection is uncontrolled along Streamview Drive and stop sign controlled along Glade Street.
- Egan Street/Streamview Drive intersection is uncontrolled along Streamview Drive and stop sign controlled along Egan Street.

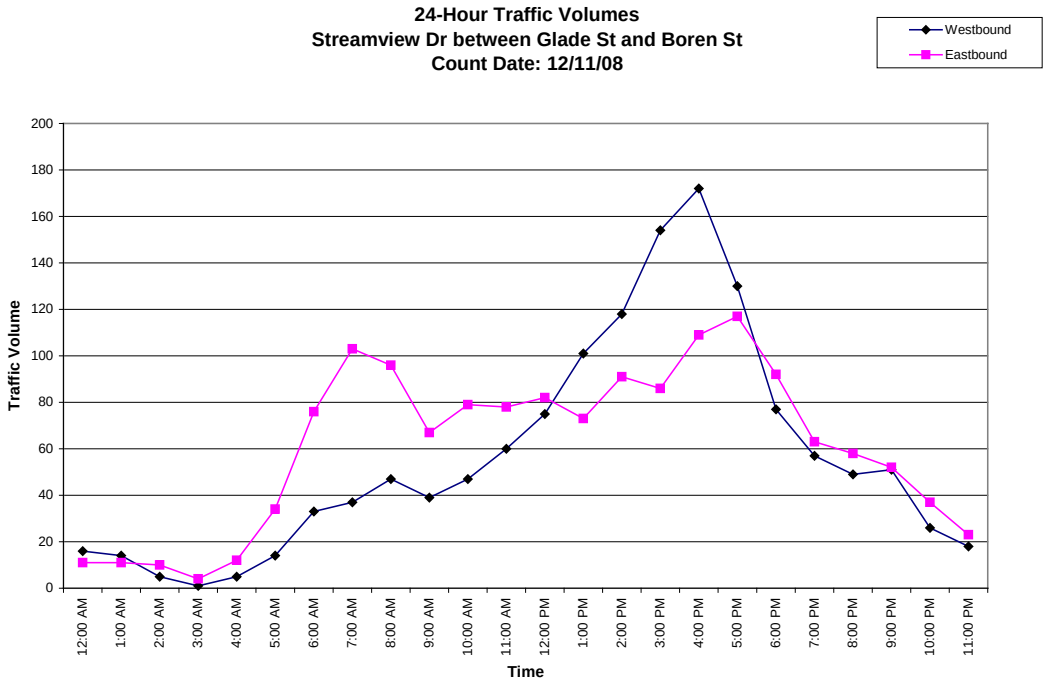
[28] Functional Classification based on the California Department of Transportation, California Road System.
[29] City of San Diego Interactive Map, Road Classes.

- Hasty Street/Streamview Drive intersection is uncontrolled along Streamview Drive and stop sign controlled along Hasty Street.
- Boren Street/Streamview Drive intersection is uncontrolled along Streamview Drive and stop sign controlled along Boren Street.
- Sparling Street/Streamview Drive intersection is uncontrolled along Streamview Drive and stop sign controlled along Sparling Street.
- Perique Street/Streamview Drive intersection is uncontrolled along Streamview Drive and stop sign controlled along Perique Street.

3.1.3 Traffic Volumes

Twenty-four hour traffic volume surveys were conducted along Streamview Drive between Glade Street and Boren Street on December 11, 2008. The current daily traffic volume in this segment of Streamview Drive is approximately 2,800 vehicles. Figure 8 shows the 24-hour traffic volume profile for this section of roadway. This figure shows that traffic volumes peak between 4:00 PM and 5:00PM in the westbound direction, and between 5:00 PM and 6:00 PM in the eastbound direction. Complete twenty-four hour traffic volume surveys can be found in the Technical Appendix.

Figure 8: Hourly Traffic Volume for Streamview Dr (between Glade Street and Boren Street)



3.1.4 Speed Survey

Speed surveys were conducted on Streamview Drive between Glade Street and Boren Street on December 11, 2008. Table 8 shows the results of the speed survey data, as well

as the posted speed in this section of roadway. Additional survey data can be found in the Technical Appendix.

Table 8: Speed Survey Summary

LOCATION	DIRECTION	POSTED SPEED (MPH)	50TH PERCENTILE SPEED (MPH)	85TH PERCENTILE SPEED (MPH)
Streamview Dr between Glade Street and Boren Street	Westbound	25	31	36
	Eastbound	25	30	35

The 50th percentile speed represents the average speed and separates the fastest 50% and slowest 50% of motorist. If the speed limit were set at the average speed, only 50% of vehicles would be legalized. The 85th percentile speed is the speed at which 85 percent of the vehicles are traveling at or below. It is used as a measure of the upper limit of reasonable speed for the prevailing conditions on the roadway. Typically, facilities are designed for the 85th percentile speed.

3.1.5 Pedestrians/Bicycles Facilities

Sidewalks exist along Streamview Drive between Gayle Street and College Avenue. There are no on-street bike lanes along this section of roadway. However, Streamview Drive is part of the San Diego Bicycle Master Plan[30], which recommends Class II or III bicycle facilities.

The American with Disabilities Act (ADA) recommends a minimum clear width of 36 inches along pedestrian paths. Sections of existing sidewalks with less than 36" clearance due to existing streetlight poles, signs or fire hydrants were identified in the field. Measures must be taken to mitigate these issues and provide at least 36" clearance path for pedestrians. Figures with the missing sidewalk locations and pedestrian obstructions are included in the Technical Appendix.

3.1.6 Transit

The Metropolitan Transit System (MTS) bus routes provide transit service to Streamview Drive. Route 916 serves Streamview Drive in the eastbound direction, and route 917 serves the westbound direction. These routes serve this section with headways of 30 minutes during weekdays and 60 minutes during the weekends. Figure 9 shows the existing transit bus stops, and bus routes along Streamview Drive between 54th Street and Lynn Street/Michael Street.

[30] City of San Diego Bicycle Master Plan, May 2002, Pg 78.

Figure 9: **Streamview Drive Existing Transit Bus Stops and Bus Routes**

3.1.7 Collisions

Historical collision data was analyzed for Streamview Drive between Gayle Street and College Avenue. Collision Data was collected from the City of San Diego database from years 2003 to 2008. During this period there were 8 collisions reported. Figure 10 summarizes the historical collision data.

Crash rates are an effective tool to measure safety hazards at a particular section of roadway. Yearly crash rates from 2003 to 2008 where developed for this section of roadway. The crash rates at this segment of roadway are higher than the city-wide crash rates for minor collectors. Measures need to be taken to mitigate and reduce the number of accidents in this section of roadway. Table 9 shows a summary of accidents and yearly crash rates for this section of Streamview Drive.

Figure 10: Historical Collision Data Over Time, Section 3 (2003-2008)

YEAR	2003	2004	2005	2006	2007	2008	TOTAL*
Hit Parked Vehicle	0 (0)	1 (1)	2 (0)	1 (0)	0 (0)	1(0)	5 (1)
Side Swipe	0 (0)	0 (0)	0 (0)	1 (1)	0 (0)	0 (0)	1(1)
RT Angle	1 (1)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1(1)
Run Off Rd – Hit Object	0 (0)	0 (0)	0 (0)	0 (0)	1 (0)	0 (0)	1(1)

x(x) = Total Crashes (People Injured)

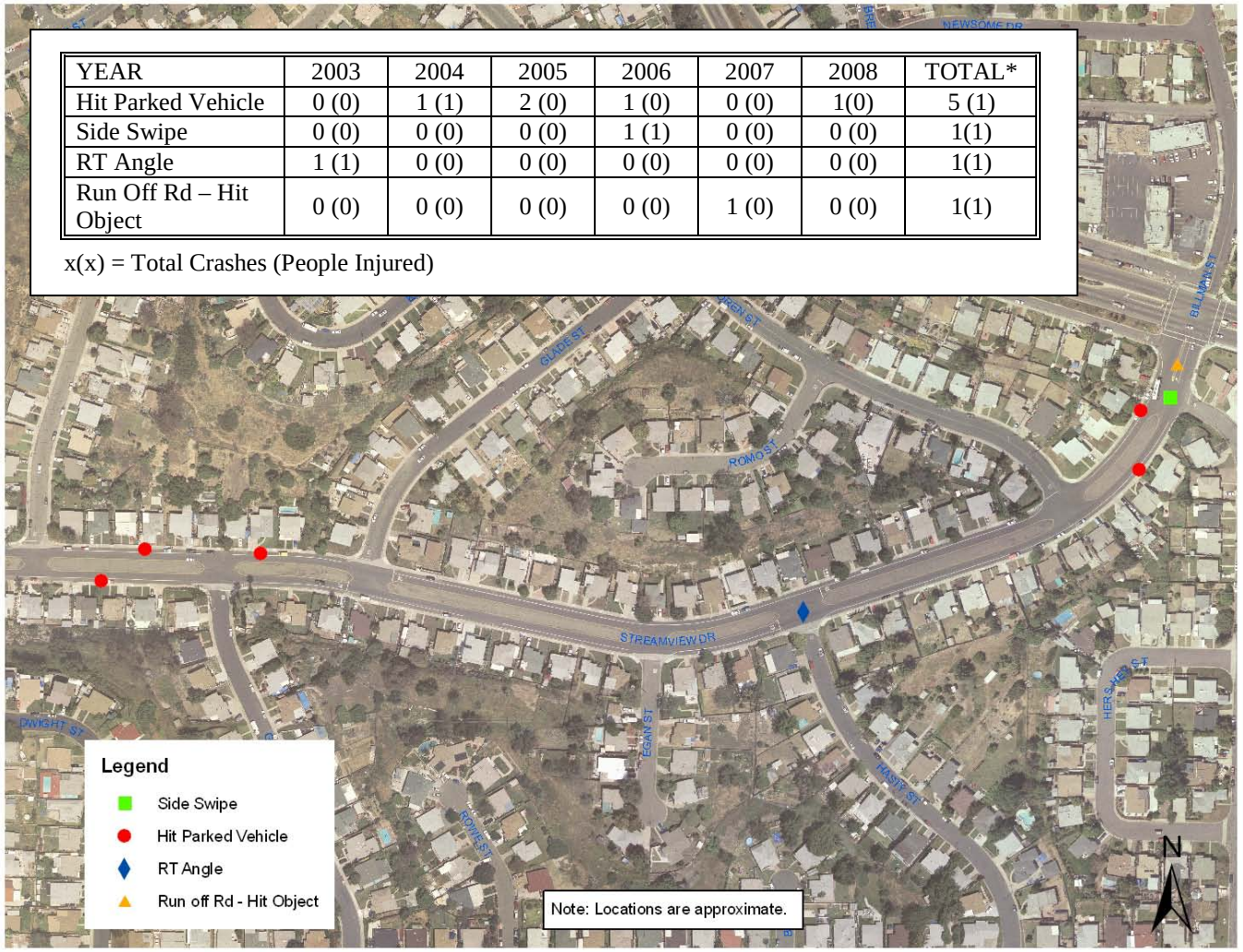


Table 9: Section 3: Collision History and Crash Rates

SECTION 1						
Year	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Number of Accidents	1	1	2	2	1	1
Crash Rate (MVM)	2.35	2.35	4.71	4.71	2.35	2.35
City Wide Crash Rate (Minor Collector) (MVM)	1.08	1.04	0.98	1.00	0.96	0.90

3.2 FUTURE RECOMMENDED STREET NETWORK

The Mid-City Community Plan[31] reported future traffic analysis conditions for the Mid-City area. Based on this future analysis, the Community Plan recommends a 2-lane collector roadway classification for Streamview Drive.

3.3 RECOMMENDATIONS

Based on the volume, speed data, and accident data along Streamview Drive, traffic calming measures were evaluated. A two lane roadway is recommended based on the future recommended street network shown in the Mid-City Communities Plan (See Section 2.2). The recommended roadway improvements are shown in Figure 11 (See section 4) and are describe below:

- Due to the high speeds along this section of roadway, a gateway at College Avenue is recommended to alert the drivers that they have entered a residential neighborhood.
- A traffic circle is recommended at the Boren Street/Streamview Drive intersection. This traffic circle will slow down traffic along the corridor.
- Remove obstructions to meet the 36” minimum clearance along pedestrian paths.
- Install urban parkways on both sides of the street. Urban parkways should include 8’ sidewalks with 2’-3’ planter strips or 6’ sidewalks with 2’-3’ parkway strips. 8’ sidewalks are preferred.
- Install 5’ bike lanes and 8’ parallel parking on both sides of the street.
- Install 12’ travel lanes in each direction of traffic.
- Install double yellow striping or 4’ max. raised median to divide traffic in opposite directions.
- Evaluate existing street lighting and install new lights as needed.
- Install appropriate signing and striping along the corridor.

[31] Mid-City Communities Plan, August 4, 1998.

4. SUMMARY OF RECOMMENDATIONS

Based on the existing transportation conditions, the proposed traffic calming alternatives were evaluated for the three sections of Streamview Drive between 54th Street and College Avenue. Figure 11 shows the recommended improvements along with the proposed roadway cross-section characteristics.

Due to the high number of accidents involving children and bikes, and high crash rates on Section 2, high priority must be given to this section of Streamview Drive.

Figure 11: Summary of Recommendations